

To Cite:

Ballut OM, Alghamdi TA, Alghamdi FGA, Alghamdi TAT, Alzahrani TSS. The extent of family satisfaction to relatives' care in the intensive care units in Saudi Arabia. *Medical Science* 2022; 26:ms298e2394. doi: <https://doi.org/10.54905/disssi/v26i125/ms298e2394>

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Peer-Review History

Received: 06 July 2022

Reviewed & Revised: 06/July/2022 to 19/July/2022

Accepted: 20 July 2022

Published: 23 July 2022

Peer-review Method

External peer-review was done through double-blind method.

URL: <https://www.discoveryjournals.org/medicalscience>



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The extent of family satisfaction to relatives' care in the intensive care units in Saudi Arabia

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ABSTRACT

Introduction: The family has an important role in the recovery of the intensive care patient. Evidence in the literature reveals the importance of family members' satisfaction with patient care. Because of that, it is crucial to evaluate the level of family satisfaction with the services provided to them and their patients. **Methodology:** A comparative, descriptive multicenter cross-sectional study was carried out in Saudi Arabia, targeting all Intensive Care Units in both Government and Private Hospitals in all regions equally. **Result:** A total of 2053 responses were analyzed. A 63.4% satisfaction index was reported for communication with ICU staff, the emotional support and support in decision making reported a 62.9% satisfaction index. The patient's and family's overall needs reported a 56.9% satisfaction index. Also, data showed some discrepancies between government and private hospitals. **Discussion:** A high satisfaction index among families for the services provided to their patients in intensive care units, compared to the satisfaction index among families in the Arab world, and with a relative level compared with research around the world. **Conclusion:** This study showed a satisfaction level of 56.9% in meeting the patient's and family's overall needs; many families indicated the need for improvement in the ICU's services. That urges to carry out future researches to identify the families' and patients' needs in detail.

Keywords: Intensive Care Units, Family, Satisfaction

1. INTRODUCTION

One of the essential factors in evaluating the quality of care provided to patients is to evaluate the level of patient satisfaction with the services offered to them (Mahrous, 2017). Intensive care unit (ICU) is essential department in the hospital. Therefore, its impact is reflected on all hospital services and patient safety. Due to the exceptional situation of critical care patients, many are under sedation or unconscious; the family rule is essential in supporting patients and making decisions. Thus, families are a valuable source of

information. The family also plays an essential role in the recovery and improvement of the intensive care patient (Neves et al., 2009). Evidence indicated the importance of family members' satisfaction with patient care (Neves et al., 2009; Harvey, 2004; Alvarez and Kirby, 2006). With the presence of their family member in ICUs, families of intensive care patients are exposed to physiological and psychological stress, and they are more prone to depression and posttraumatic stress disorder (Alsharari, 2019). about 43% of the relatives of patients who had been in an ICU had high levels of depressive symptoms a year after discharge (Cameron et al., 2016), starting from understanding the situation of their family member and even making important decisions on their behalf, that putting families in a difficult situation. Therefore, studying this and other aspects of their requirements inevitably will help us improve the quality of their lives and will also help to improve the condition of patients accordingly.

Interaction between health care providers is a key and essential thing in improving decisions making. It also helps to raise the satisfaction of families regarding care provided to their patients. Interaction with patients is not limited to doctors only; it extends to all health care providers, especially nurses. Some studies have found that nurses are the best for meeting families' needs (Baharoon et al., 2018). A mixed-method study in Egypt found that simple strategies can enhance family satisfaction (Eltaybani and Ahmed, 2021). Simple steps that we can take will improve family satisfaction and decrease the bad events associated with ICU admission that will affect the overall patient quality service (Alvarez and Kirby, 2006).

2. METHODOLOGY

This is a comparative, descriptive multicenter cross-sectional study conducted in Saudi Arabia, targeting all ICUs in Government and Private Hospitals in all regions equally. The Al-Baha University, College of Medicine, Research Ethics Committee revised and approved this study; approval number (REC/SEC/BU-FM/2022/18), as well as the informed consent of the participants in this study. A questionnaire was sent online to all regions around the Kingdom of Saudi Arabia (KSA), targeting families who have patients in intensive care or previously had one. We get a fair distribution of answers compared to the number of populations per region (table 1).

Table 1 numbers and percentages of participants from each Province

Provinces	N (%)
Eastern Region	453(22.1)
Riyadh Region	313(15.2)
Mecca Region	261(12.7)
Najran Region	258(12.6)
Medina Region	206(10)
Qassim Region	149(7.2)
Others	413(20.1)

The questionnaire was designed to achieve the study's objectives. The questionnaire was translated into the Arabic language as well as English version; the translation was based on a previous published Arabic version (Brown, 2008). The questionnaire was built upon previous valid questionnaires (Wright et al., 2015; Heyland et al., 2002); its validity and comprehensibility were tested through a pilot study before distribution. According to the last published statistics from General Authority for Statistics in Saudi Arabia, the sample size was calculated to achieve a 5% margin of error and 95% confidence level.

Statistical Package for Social Science (SPSS) software, the version 26, was used to analyze the data. We prepared the qualitative data, and the results were presented as frequencies and percentages. Descriptive statistics were shown using measures of central tendency and dispersion. However, the family members' satisfaction level is expressed as the median and interquartile interval (1st percentile-3rd percentile). The Mann-Whitney and Kruskal-Wallis tests were used to correlate the family members' level of satisfaction with other variables according to the number of groups, and the significance value was 0.05.

3. RESULT

This study was conducted over two years, from March 2020 to March 2022; Data were collected over six months. A total of 2843 responses were obtained from different regions of KSA. The majority of the sample was given to large cities; (table 1). The results showed a balanced distribution among the cities of Saudi Arabia. 2125 of them answered with YES if they had a patient admitted to

the ICU. The rest of the replies were excluded for their answer with NO if they have a patient admitted to intensive care; incomplete data also were excluded. A total of 2053 responses were included in the data analysis.

An equal distribution between males and females in response to the questionnaire by 1015 (49.4%) males and 1038 (50.6%) females, in a total of 359 (17.5%) participants, were from private hospitals and 1694 (82.5%) from government hospitals. The cases are divided between medical 1396 (68%) cases and surgical 657 (32%) cases. Most of those who filled out the questionnaire were patients' parents by 868 (42.4%), with a college education level for most of them 1166 (56.8%). 1038 (50.6%) of the respondents were the main ones responsible for the patient—the rest of the sociodemographic characteristics of the study group (Table 2).

Table 2 shows sociodemographic characteristics of the study groups that were interviewed from the private and government hospitals.

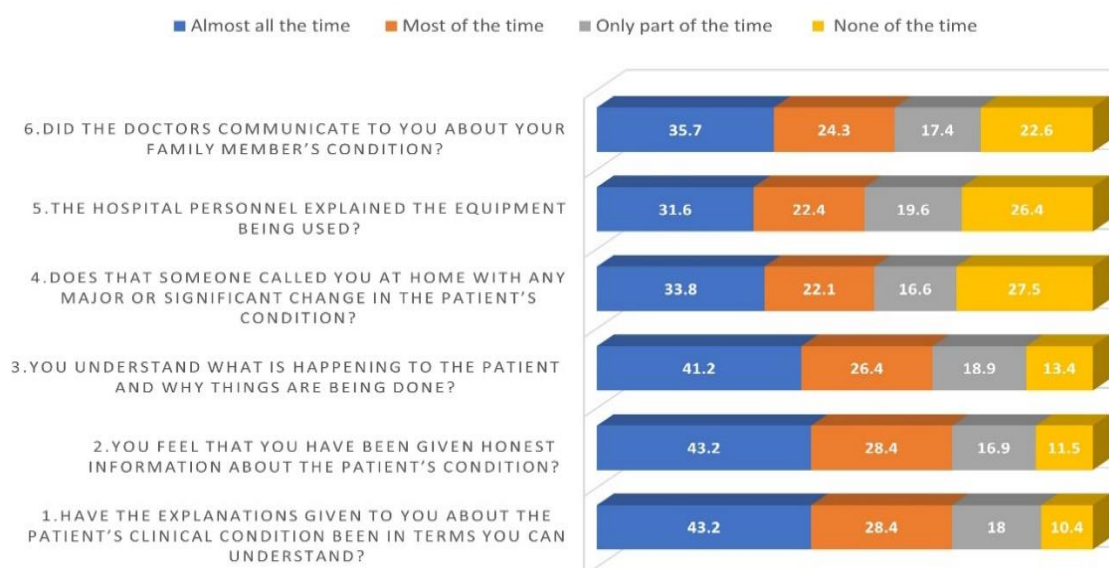
Variable	N=2053 N (%)
Health care facility	
Private	359 (17.5)
Governmental	1694 (82.5)
AGE	
Less than 25	806 (39)
26-45 years	937 (45.6)
More than 45 years	310 (15.4)
GENDER	
Male	1015 (49.4)
Female	1038 (50.6)
Cause of admission	
Medical	1396 (68)
Surgical	657 (32)
Level of kinship	
Father/mother	868 (42.4)
Spouse	161 (7.8)
Son/ daughter	134 (6.5)
Brother/ sister	329 (16)
Others	561 (27.3)
Education level	
Uneducated	148 (7.2)
Primary education	159 (7.7)
High school	420 (20.5)
High education	160 (7.8)
College	1166 (56.8)
Main responsible of the patient	
Yes	1038 (50.6)
No	1015 (49.4)
ICU length of stay, day	
median	9
interquartile range	15
minimum	1
maximum	780
Average of visits, numbers	
Once or more a week	1844 (89.8)
Once every two weeks	78 (3.8)
Others	131 (6.4)

A higher median satisfaction index was calculated for surgical causes admission, male participants, a participant who visits their relatives weekly, and some regions like Riyadh and Medina. These were all statistically significant. However, no statistically significant difference was noticed when comparing health care facility and educational level of participants (p-value >0.05) (table 3)

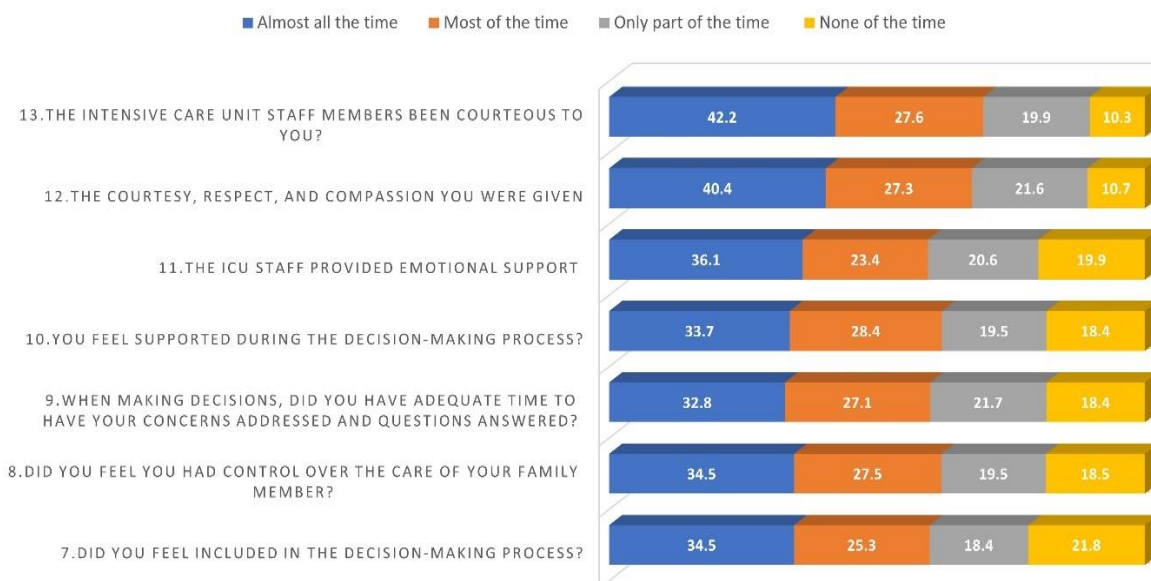
Table 3 Factors associated with the satisfaction of family members

Factor	Median (percentile)	P-value
Health care facility		0.305 (NS)
• Private	15 (10-19)	
• Governmental	16 (8-20)	
Gender		0.000*
• male	16 (10-21)	
• female	15 (8-20)	
Cause of admission		0.009*
• medical	15 (8-20)	
• surgical	16 (10-20)	
Educational level		0.073(NS)
• up to high school	16 (9-21)	
• college of more	15 (8-20)	
Number of visits		0.002*
• weekly	16 (9-20)	
• others	14 (8-18)	
Regions		0.000**
• EasternRegion	13 (6-18)	
• Riyadh Region	20 (13-21)	
• Mecca Region	17 (11-20)	
• NajranRegion	17 (12.75-21)	
• Medina Region	17.5 (13-21)	
• Qassim Region	7 (5-14.5)	
• OthersRegions	14 (8-19)	
NS -not significant. *Mann-Whitney test, which was significant at a 0.05 level. **Kruskal-Wallis test, which was significant at a 0.05 level		

The first domain of the questionnaire shows the level of family satisfaction regarding meeting family needs in communication (Figure 1), where the highest satisfaction index score is noted in response to the explanations and the honesty of information that has been given to the families (questions 1,2). The lowest was to explain the equipment being used (question 5). Other questions are ranging. The overall family satisfaction in meeting family needs in communication is 63.4%.

DOMAIN I: MEETING FAMILY NEEDS COMMUNICATION:**Figure 1** Meeting family needs in communication.

The second domain shows the level of emotional support and the support in decision-making that families receive (Figure 2). The courtesy of ICU staff took the highest satisfaction index among participants (Question 13), and involving the family in the decision-making process showed the lowest satisfaction index (question 7). The overall satisfaction level among participants was 62.9%, which is less than the overall satisfaction index of the first domain.

DOMAIN II: MEETING EMOTIONAL FAMILY NEEDS AND SUPPORT IN DECISION MAKING:**Figure 2** Meeting emotional needs and support in decision making.

Regarding the last domain in meeting shows the overall needs (Figure 3). Families were satisfied with How ICU staff assessed and treated patient symptoms (question 15), which recorded the highest satisfaction index; the lowest satisfaction index was recorded for the lonely and isolation feelings that families expressed (question 18). This domain also recorded the lowest satisfaction index among the three domains (56.9%).

DOMAIN III: MEETING OVERALL NEEDS OF THE PATIENT AND FAMILY

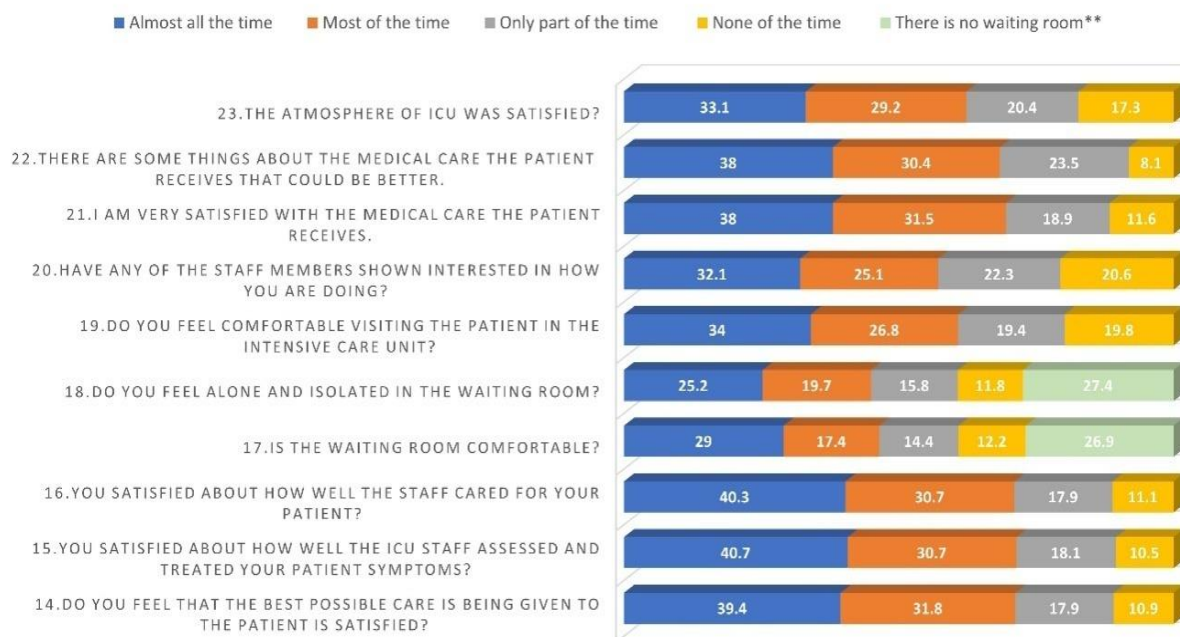


Figure 3 Meeting overall needs of the patient and family.

Median is 16, Mean is 13.9, with a standard deviation of ± 6.7 was recorded at 8.5 for the first percentile and 20 for the third percentile. The data showed some discrepancy between government and private hospitals; when comparing both hospitals, families are more satisfied with the service provided in government hospitals (question 21). In contrast, families felt less lonely and isolated in the waiting room in private hospitals (question 18), which is both statistically significant (p -value < 0.00), otherwise, there are no statistically significant differences.

4. DISCUSSION

Saudi society is muslim, conservative society and family is considered to be the fundamental pillar of it. The religion and traditions of this society urge to provide psychological and emotional support to their individual during their illness. In these societies and such strong relationships between family members, must-have repercussions on the family and the patient. Also, in the last years, studies indicated the importance of families' satisfaction with the services provided for their patients in ICUs and the advantages of increasing the level of satisfaction. Even Some studies claimed a correlation between that and the patients' outcomes (Dodek et al., 2012; Abvali et al., 2015; Dodek et al., 2012). On this subject, many studies have been done globally to measure families' satisfaction (Dolatyari et al., 2014; Padilla et al., 2021; Damghi et al., 2008); however, only one study has been done in the Kingdom of Saudi Arabia (1); here in our research, we expand this work to all regions around Saudi Arabia to elaborate the level of satisfaction around the Kingdom. However, a high satisfaction index among families for the services provided to their patients in ICUs, compared to the satisfaction index among families in the Arab world (18), and with a relative level compared with research around the world (Khan et al., 2014).

Some of the questionnaire elements showed a high level of satisfaction indexes, such as the explanations given to the families about the patient's clinical condition and the honesty of information (questions 1, 2). Also, a high satisfaction index for the service provided to the patient indicates a high level of trust in health care services in Saudi Arabia (questions 14, 15, 16). On the other hand, a very low satisfaction index was recorded for the waiting rooms, where the family felt uncomfortable, isolated, and lonely. Unfortunately, some hospitals do not even have a waiting room, which we need to pay attention to. ICUs are environments surrounded by stress for patients and staff (Sasidharan and Dhillon, 2021; Patil et al., 2021). Some research has also pointed out stress in ICU work and its impact on the support provided to the patient (Patil, 2021; Roberti and Fitzpatrick, 2010), which may result in their low level of satisfaction. In other questions, an average to low level of satisfaction regarding the level of support that families are receiving from ICU staff (questions 10, 11, 20). As we need to take care of the family, we should do for the ICU staff; this leads to a high level of care and satisfaction for both.

In this study, when comparing government and private hospitals, there was a higher level of satisfaction with the services provided in government hospitals than in private hospitals. When the families express a statistically significant level of trust in governmental hospitals (question 21), this may be attributed to that private hospital patients and their families are more demanding and less satisfied (Mahrous, 2017). More care is given in private hospitals to provide emotional support, which may be attributed to some of their policies in providing psychological and emotional support to the patient's families, as opposed to what we may see in government hospitals lacking psychological and emotional support and here, we urge government hospitals to pay more attention to this emotional support aspect.

Finally, this study shows an urgent need to carry out future research to identify in detail and accurately the needs of families and the services that can be improved. As shown in the questionnaire, many families express that there are some things patients receive that could be better regarding medical care.

5. CONCLUSION

This study showed a satisfaction level of 56.9% in Saudi Arabia's ICUs; many families indicated the need for improvement in the ICU's services. That urgeto carry out future research to identify the families' and patients' needs in detail.

Acknowledgement

We would like to acknowledge all participants who were contributed to this study.

Author Contributions

Fares Alghamdi is the one who came up with the idea, Thamer Tami & Thamer Saad designed the study and supervised the data collection, Omar Mahmoud analyzed the data, Thamer Ahmed & Fares Alghamdi wrote the draft for the manuscript, Omar Mahmoud did the overall supervision and revision. Finally, all authors revised and approved the version for publication.

Ethical approval

The study was approved by Research Ethics Committee at Al-Baha University, College of Medicine, (Ethical approval code: REC/SEC/BU-FM/2022/18).

Funding

This study has not received any external funding.

Conflicts of interest

The authors declare that there are no conflicts of interests.

Data and materials availability

All data associated with this study are present in the paper.

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